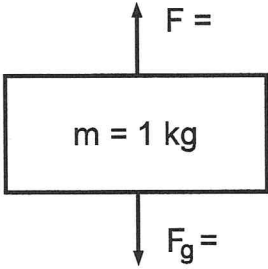
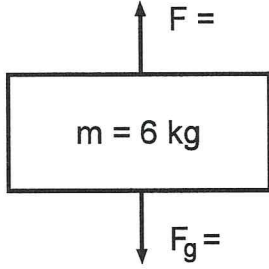
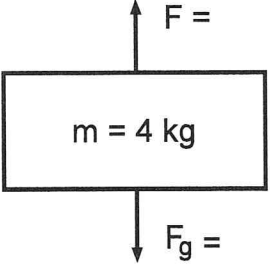
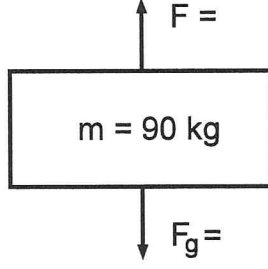
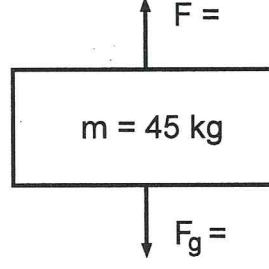
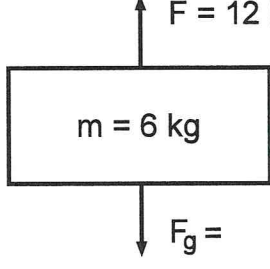
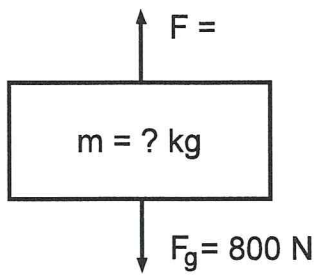


Each of the following free body diagrams represents a different problem. From the given data, solve for the missing quantities. Complete solutions for each problem should be shown (use a separate sheet if necessary). {Use  $g = 9.8 \text{ m/s}^2$ }

<p>1)</p>  <p><math>F_g =</math></p> <p><math>a = 2.0 \text{ m/s}^2 \downarrow</math></p> <p><math>F_{\text{net}} =</math></p> <p><math>F =</math></p>	<p>2)</p>  <p><math>F_g =</math></p> <p><math>a = 3.0 \text{ m/s}^2 \uparrow</math></p> <p><math>F_{\text{net}} =</math></p> <p><math>F =</math></p>	<p>3)</p>  <p><math>F_g =</math></p> <p><math>a = 2.0 \text{ m/s}^2 \downarrow</math></p> <p><math>F_{\text{net}} =</math></p> <p><math>F =</math></p>
<p>4)</p>  <p><math>F_g =</math></p> <p><math>a = 0.5 \text{ m/s}^2 \downarrow</math></p> <p><math>F_{\text{net}} =</math></p> <p><math>F =</math></p>	<p>5)</p>  <p><math>F_g =</math></p> <p><math>a = 1.0 \text{ m/s}^2 \uparrow</math></p> <p><math>F_{\text{net}} =</math></p> <p><math>F =</math></p>	<p>6)</p>  <p><math>F_g =</math></p> <p><math>F_{\text{net}} =</math></p> <p><math>a =</math></p>

7)

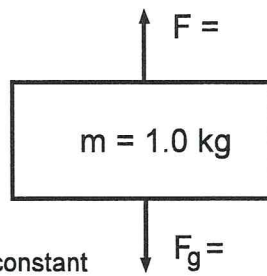


m =

 $a = 1.0 \text{ m/s}^2 \downarrow$  $F_{\text{net}} =$ 

F =

8)



v = constant

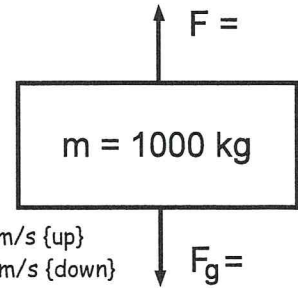
 $F_g =$ 

a =

 $F_{\text{net}} =$ 

F =

9)

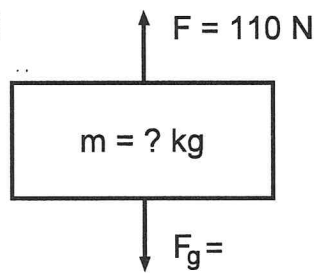
 $v_1 = 2 \text{ m/s \{up\}}$  $v_2 = 2 \text{ m/s \{down\}}$  $\Delta t = 4.0 \text{ s}$ 

a =

 $F_g =$  $F_{\text{net}} =$ 

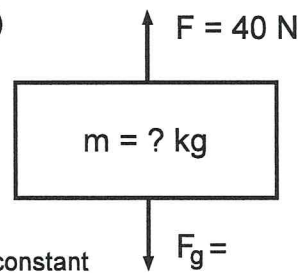
F =

10)

 $a = 1.0 \text{ m/s}^2 \{\text{up}\}$  $F_g =$  $F_{\text{net}} =$ 

m =

11)



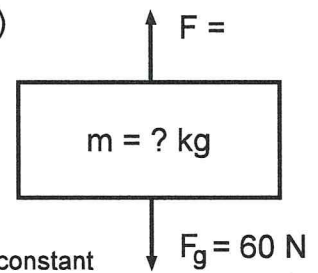
v = constant

a =

 $F_{\text{net}} =$  $F_g =$ 

m =

12)



v = constant

a =

F =

 $F_{\text{net}} =$ 

m =